

Original Article

The effect of early change of skin graft dressing on pain and anxiety among burn patients: a two-group randomized controlled clinical trial

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Abstract: Burn is one of the injuries causing enormous pain among the patients, and the treatment procedure poses great anxiety. This study was designed to determine the effect of early change of skin graft on the pain and anxiety of the patients. **Materials and methods:** This clinical trial study was accomplished on 64 burn patients at Burn Center of Qazvin University of Medical Sciences in 2018. Convenience sampling was used to select the participants who were then randomly assigned into intervention and control groups. In the intervention group, the graft and donor site dressing was changed one day (early change) after the surgery, while it was done after three days for the control group, both in the same way. The researchers assessed the burn pain anxiety of the patients with BSPAS (Burn Specific Pain Anxiety Scale) and the pain intensity with VAS (Visual Analogue Scale). The data were fed into SPSS 21, and then Chi-square and independent t-test were calculated. **Results:** The average ages of the patients in the intervention and control groups were respectively 40.4 ± 14.3 and 36.8 ± 13.8 . The percentage of burn was 12.1 in the intervention groups and 14.5 in the control group. Statistical analysis using Chi-Square revealed no significant differences between the two groups in the contextual variables ($P > 0.05$). Pain intensity was 4 ± 1.8 in the intervention group and it was 6 ± 1.9 in the control group showing a moderate pain in the former group and severe pain in the control group ($P < 0.001$). Furthermore, it was found that the anxiety level in the control group (46.8 ± 11.2) was significantly greater than that of the intervention group (33.6 ± 11.3) ($P < 0.001$). **Conclusion:** Given that early change of skin graft and donor dressing has a positive effect on decreasing the amount of pain and anxiety, it is recommended to change the dressing in 24 hours after the surgery.

Keywords: Burn wound, pain anxiety, graft dressing, pain intensity, skin graft

Introduction

Burn is a kind of trauma which is very severe and leads to high mortality rate, heavy costs, hospital complications, and psychological problems [1]. Thermal damage results in the most harmful physical and psychological damage to the patient [2]. About 2 million people in the US annually burn, out of them half a million require outpatient medical treatment and the rest need hospitalization [3, 4]. One of the major issues burn patients encounter is suffering severe pain and high level of anxiety which bring about adverse effects, though nursing staff take no proper action to control it due to different reasons [5, 6]. The burn pain is analogized to hell pain because of its severity and intolerability [7, 8]. Due to skin damage, burn pain is felt

throughout the treatment procedure containing washing, dressing, debridement, skin graft, and physiotherapy, although the main cause is the required daily care. Thus, decreasing the pain related to dressing change is one of the main ways to reduce the pain in such patients [9]. Not managing the pain in these patients will bring about various physiological, social, and psychological issues. If this acute and severe pain is not relieved, it will lead to a series of problems such as depression, discomfort, patient dissatisfaction, delay in wound healing, and prolonged hospitalization causing economic problems for the person and the society [10]. Pain is associated with hypermetabolism and since burn patients' nutrition needs increase, pain causes malnutrition in these patients, so pain management should be prioritized at all